



THOMAS G. NEWMAN,  
EDITOR.

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## EDITORIAL BUZZINGS.

Love is the impulse which directs the world,  
And all things know it and obey its power.  
Man, in the maelstrom of his passions whirled;  
The bee, that takes the pollen to the flower.

**The Bee-Keepers' Advance** and Poultryman's Journal for January is on our desk. It is in new form—two columns on a page, and contains 32 pages. It is well printed and edited. We congratulate Bro. Mason on its appearance.

**A Correspondent** desires us to state the price of the *Australasian Bee Journal*, and the address of the publisher. It is a sixteen-page monthly edited by I. Hopkins, and published by Hopkins, Hayr & Co., Auckland, New Zealand. With postage it will take \$2.00 a year to get it.

**The Apiary** of Mr. H. J. Rogers, of Stannards' Corners, N. Y., is on our desk. It shows about 80 hives, and was taken in summer, when the trees were clothed with leaves, the apiarist was at work in his shirt-sleeves, and his family were out with bare heads watching his movements and enjoying the balmy air. It is placed in our Museum Album.

**The Number and Names** of the new States shortly to be admitted into the Union, is the subject of every one's thoughts, and Ausburn Towner, on "Our Would-be States," in *Frank Leslie's Popular Monthly* for February, gives us much valuable information about Dakota, Montana, Idaho, Wyoming, Washington, Arizona and New Mexico. The stories of the number are excellent, and the illustrations beautiful.

When D. A. Jones and Frank Benton were looking for the Syrian bees, they told us of some of their very interesting experiences in trying to bring hives of bees from Jerusalem to Joppa, there to take a boat for Europe. They had to hire natives to carry the hives of bees (in clay cylinders) on their shoulders over that rocky and mountainous route, beset with dangers, etc. The donkey and camel drivers had it all their own way then. Now, we see by the news from Europe that "the Sultan has just granted a concession (charter) for the building of a railway from Joppa (or Jaffa) to Jerusalem. This will do away with the most disagreeable portion of the route for western visitors to the city of Jerusalem, and the land of Palestine.

**Progress** is the order of the day. Mr. W. Z. Hutchinson thus discusses in the *Review* the progress of the present, and compares it with the methods of apiculture in the past:

But it is a pleasure to note that the fixtures and methods of to-day are superior even to those of half a dozen years ago. In this matter of sections and their management, we have most emphatically discarded the plan of putting them on the hives and taking them off one at a time; a few bee-keepers still manipulate them by the wide frame full; but the majority of bee-keepers have adopted some sort of a case or super by means of which 25 or 30 sections can be handled at one time quicker than a wink; and "tiring-up" may be practiced. The old, cumbersome, complicated, laborious, side-storing system is, practically, laid upon the shelf. We feel like taking it for granted that "top-storing" and "tiring-up" with some kind of a case, crate or rack, furnish the best method now known for securing comb honey; that it is the only plan that enables us to handle a "honey shower" with perfect ease, "rattling" the sections on and off the hives in a rapid, business-like way.

**The Apiarist** who is careful, intelligent and painstaking will succeed, while the negligent and careless bee-keeper will sooner or later fail. Mr. G. M. Doolittle, in the *Rural Home*, makes the following statement, which we would thoroughly endorse and commend to the careful consideration of all:

If any person expects to realize a large income from his bees and never look after their condition (simply hive them and put on the sections), he will find himself greatly mistaken. How many that read this know the exact condition of their bees at all times? If you do not, my friend, you are not caring for them as well as you would for your horse or cow, neither can you expect any more profit from them than you would from a cow or horse if you never looked after them. Bee-keeping only pays when our pets are properly looked after, and if any one cannot spend the amount of time on them which they require, he had better keep out of the business, for sooner or later he will turn away from it in disgust.

**The Horticultural Society** for Lucas County, Ohio, has elected Dr. A. B. Mason as its President for the coming year. He will fill the office with honor to the society.

**Winter Work** should now be attended to. It is no time to fold your hands and dream of the future. Concerning the work which should now be given attention, Mr. C. H. Dibbern remarks as follows in the *Western Plowman*:

This is the time to do some heavy thinking and studying. A good deal of work can also be done now in the work-shop, making hives, cases, and other fixtures that will be needed next summer. Sections can be put together, foundation put in them, and placed in cases ready to go on the hives. These are generally found very handy when the busy time comes. It is also a good time to look back over the past season's operations, and determine wherein we can improve in the future.

**Increasing an Apiary.**—Jacob H. Warner, Middleburg, N. Y., on Jan. 16, 1889, asks for advice on increasing his apiary:

I am a middle-aged man, with declining health. I have owned a few colonies of bees for the last year, and I thought that it paid me fairly, and I would like to own a larger stock. Some have advised me to send to the South, and get a few nuclei. Others think that it is best to buy the native bees. Do you think that it is best to increase my apiary from the colonies I have? Which of the three ways would you advise me to take?

The safest plan will be to increase the colonies you have, and if they are black bees, buy some Italian queens and introduce them. This will give you experience as well as increase.

**The British Bee Journal** is now publishing articles on queen rearing by Henry Alley, simultaneously with their appearance in the *Apiculturist*. Dr. C. C. Miller, and his methods, are also receiving illustrated attention in that paper. Americans are now "having their day" in our British cotemporary. British honey imports during December, 1888, amounted to 3,033 pounds.

**Catalogues** for 1889 are on our desk from—

A. D. Cozad, Kremis, Pa.—4 pages—Bee-Keepers' Supplies and Plants.

Cole's Garden, Farm and Flower Seeds, Pella, Iowa—50 pages—Seeds, Garden Tools, etc.

Landrath's Vegetable Garden Seeds—50 pages—Kitchen Garden Calendar, Price List, etc., Philadelphia, Pa.

F. E. Myers & Bro., Ashland, O.—Poster and Calendar—Myers Pumps and Hay Tools.

**Always Mention** your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

**Your Full Address**, plainly written, is very essential in order to avoid mistakes.

## BOOK REVIEW.

**Langstroth on the Hive and Honey-Bee**, revised, enlarged, and completed by Chas. Dadant & Son. This is the title of the new edition of the Langstroth book, just published by Dadant & Son, at Hamilton, Ills.

The first edition of Mr. Langstroth's work was published in 1852. The last revision was made in 1859, and now after 30 years, during which time more has been done to make bee-culture thoroughly practical than in a century previously, another revision has become necessary, and we are glad to know that it has been done so thoroughly by those eminently practical apiarists, Messrs. Charles Dadant & Son. Former editions have sold rapidly, and so will the present one. It is beautifully printed, embellished with 18 full-page plates, and 197 engravings, forming a handsome volume of over 500 pages.

The first chapter is devoted to the "Physiology of the Honey-Bee," and covers the entire subject in a very interesting and instructive manner. On the matter of "color and odor" as a means of attracting bees, it avers that both attract the bees, but contends that "the smell of honey is certainly the main attraction." It asserts that "this attraction is so powerful, that frequently at day-break in the summer, the bees will be found in full flight, gathering the honey which has been secreted in the night, when nothing on the preceding evening could have predicted such a crop; this happens especially when there is a production of honey-dew after a storm."

The antennæ, its nerve structures, hairs, etc., are illustrated, and the same view is taken as in Cheshire's work, viz: that both the organs of hearing and smelling are found in the antennæ—the one being called the "smell-hollows," and the other the "ear-holes." Our author claims that they can smell honey a mile away. To remove the antennæ, therefore, is to deprive bees of their intellect.

Chapter II treats of wax, propolis, etc.; Chapter III of honey, pollen, etc.; and Chapter IV of bee-hives. Here are illustrated and described many of the hives in use from the earthen hives of Africa to the movable-frame hives of America; including the straw hives of Europe, and the observing hives for exhibitions.

Chapter V treats of the popular management of bees, and the aids thereto, such as smokers, veils, etc. The stinging propensities of bees, and the remedies for the poison when injected into the human system, are also described in this chapter.

Swarming and Dividing occupy the sixth and seventh chapters. Full and explicit directions are given for the complete and economic management of the apiary during the very important period of swarming. The making of nuclei is considered, and this leads us to queen-rearing, to which Chapter VIII is devoted.

On the races of bees, Chapter IX gives the history of their introduction into America; the different varieties are described, and the preference is given to the Italians, in these words:

"The great superiority of this race over any other race known, is now universally acknowledged; for it has victoriously stood the test of practical bee-keepers, side by side with the common bees. The ultimate superseding of the common bee by the Italians, in this country, is but a matter of time."

Chapter X treats of the location of the apiary, the transferring of bees to movable-comb hives; the construction and use of honey-houses, etc., while the "Shipping and Transporting of Bees" is the subject-matter of Chapter XI.

When, What, and How to Feed Bees occupy Chapter XII. Then follow Chapters devoted to Wintering, Robbing, Comb Foundation, Pasturage and Overstocking, Comb and Extracted Honey, Diseases of Bees, Enemies of Bees, etc.

Chapter XX is devoted to the Handling and Marketing of Honey, and its uses for both food and medicine. It is claimed, and very rightly too, that during the past few years the increase of honey-production has been such that the "consumption has barely kept pace with it." The revisers also take this hopeful view of the situation: "But it will soon take its rank among necessities, like butter or syrups, and change from a luxury to a staple."

Happily for honey-producers the day for adulteration is past, and on page 484 we read this characteristic paragraph:

"The present low prices have put an end to adulteration, for a fair grade of...honey can now be bought as cheaply at wholesale as the vile, unhealthy compound, adorned with the names of golden syrup, golden drip, etc."

The authors then poke a little fun at the ridiculous *canards* about "the Wiley lie," concerning the manufacture of comb honey by machinery, and of adulterating liquid honey with glucose, which will cost at wholesale more than the honey sought to be adulterated. They sarcastically say, on page 480, that it is more likely that glucose will be adulterated with honey, than the opposite!

On page 493 a quotation is given from our pamphlet on "Honey as Food and Medicine," concerning the value of honey as a means of building up wasted tissues, and brightening the intellect, and then our authors remark thus: "These words are so true that we have found them translated in European books, by noted apiarists." Then follows a number of useful receipts for honey comestibles and medicines.

"Beeswax and its Uses" being the title of Chapter XXI, directions are given for the production of beeswax, and the many uses for it are enumerated, and receipts given for salves, mixtures, etc.

The last two chapters are devoted to "Bees, Fruits and Flowers," and "Bee-Keepers' Calendar, Mistakes and Axioms." In the former is shown the great value of

bees to fruit trees, in fructifying the flowers and increasing the quantity and quality of the fruit.

It also endorses the work of the "National Bee-Keepers' Union," and adds: "Some such association is as necessary to bee-keepers as are Trades-Unions to any group of laborers—'United we stand; divided we fall.'"

One peculiarity of this excellent book is very rare and well worth mentioning. It not only has a copious Index at the end, but a "Table of Contents" at the beginning, referring to the various subjects by bold-face figures (thus 687) corresponding to similar figures in the body of the work (thus 719), by means of which one may find any item desired (687) in an instant.

By means of these figures the reader is carried from one portion of the book to another, and enabled to "take in" all that is said upon that subject without losing interest therein, or consuming time to find the different matters referred to—making it as *interesting* as a novel; and at the same time as *concise* as historical adventures, and as *complete* and *perfect* as a book of laws.

Take it all in all, this book (Langstroth Revised) is a treasure-house of precious gems—as *vast* as the pursuit, and as *valuable* to apiarists generally as the hoarded wealth of an empire to its patriots and statesmen!

We can furnish this book by return mail for \$2.00, the publishers' price. This book and the AMERICAN BEE JOURNAL for one year for \$2.75, if sent direct to this office.

**We have Received** many nice notices of the AMERICAN BEE JOURNAL during the past few weeks, but the following are unique and racy:

Every one in any way interested in bees and the production of honey should have the AMERICAN BEE JOURNAL. It is law and gospel on these subjects, stable as the hills, right up to the times, and only one dollar a year.—*Journal, Lewiston, Maine.*

The AMERICAN BEE JOURNAL is published weekly, and is original. It is oftener quoted, perhaps, than any other authority, and its testimony is reliable. Good bee-keepers should subscribe for it if they want to keep posted on their business.—*Colorado Farmer.*

### Convention Notices.

There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m. H. M. SEELEY, Sec.

The Northeastern Michigan Bee-Keepers' Association will hold its annual convention on Feb. 6, 1889, at the Dayton Hotel in Flint, Mich., at 10 a.m. W. Z. HUTCHINSON, Sec.

The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its tenth annual convention in the City Hall at Franklin, Pa., on Wednesday and Thursday, Jan. 30 and 31, 1889. Good hotel accommodations have been secured at one dollar per day. C. H. COOK, Sec.

The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, Sec.



## QUERIES & REPLIES.

### The Highest Temperature Endurable by Bees.

Written for the American Bee Journal

**Query 609.**—How high a temperature of heat will bees endure, and live?—Michigan.

- I do not know.—JAMES HEDDON.  
 I do not know.—H. D. CUTTING.  
 I do not know.—EUGENE SECOR.  
 I do not know.—J. M. HAMBAUGH.  
 I do not know.—A. B. MASON.  
 I do not know.—WILL M. BARNUM.  
 I do not know.—M. MAHIN.  
 I do not know. Who can tell?—P. L. VIALLO.

There is no practical utility to that question. Next.—MRS. L. HARRISON.

I do not know. I presume that it might differ.—A. J. COOK.

Over 100°, Fahr. Beyond this I have never experimented.—J. P. H. BROWN.

They would succumb at about the point where the wax would melt.—C. H. DIBBERN.

Mine have stood nearly 100°. I do not know how much more they would stand.—C. C. MILLER.

I have known them to stand 115° with no harm, and I suppose that they could live in a higher temperature, but I do not know how high.—G. M. DOOLITTLE.

I do not know. They will stand immersion in syrup nearly boiling hot, and seem happy. You do not want to roast any, do you?—J. M. SHUCK.

I do not know. The temperature should always be kept below the melting point of the combs, else they will break down from the heat, and thus ruin the colony.—J. E. POND.

That depends upon how long they are subjected to the heat, upon their opportunity to get fresh air, and upon how long an existence you would require to call it "living."—R. L. TAYLOR.

The question is too indefinite to be answered directly. A temperature of 180°, in my solar wax-extractor will kill a bee in a twinkling; 160° will kill, but not instantly. I have never tested these matters as an experiment—I only answer as to what I have seen in a practical way. I am satisfied that bees suffer less of vitality when the temperature goes above 100° in the shade. My bees usually "dwindle" during an exceedingly hot spell in the latter part of the summer.—G. W. DEMAREE.

Natural yellow wax melts at from 142° to 145°, Fahr., but it can be

molded by pressure at a temperature of about 100°. At the point where combs would melt, the bees become useless, and would die in the "general wreck" or ruin of the interior of the hive. They may endure a few more degrees of heat, and still show animation, and if that is the information desired by the querist, then we would say that the bees may endure about 150° "and live."—THE EDITOR.

### The Best Method of Getting Increase.

Written for the American Bee Journal

**Query 610.**—1. I have 20 colonies of Italian bees in double-walled chaff hives, all strong and in splendid condition, with all the hives full of honey. I wish to increase them to 40 colonies during the coming season, and in order to get the most surplus honey will it be best to let them swarm, or divide them early in the spring, say about the last of April or the first of May? 2. Will it be to the best advantage to furnish them with queens, or let them rear their own queen-cells?—Illinois.

Let them swarm, and rear their own queens.—A. J. COOK.

1. Let them swarm. 2. Furnish the queens.—H. D. CUTTING.

1. Let them swarm. 2. Let them rear their own.—R. L. TAYLOR.

Rear queens early, and make swarms by dividing.—DADANT & SON.

1. Let them swarm. 2. I should prefer to furnish them with queens.—A. B. MASON.

I should let them swarm once each, letting the parent colony rear its own queen.—G. M. DOOLITTLE.

1. Allow them to swarm naturally, returning all second swarms. 2. Let them rear their own queens—unless you have some particular strain that you want to increase.—WILL M. BARNUM.

1. I would allow them to swarm naturally. If you conclude to divide, do it when the colonies are near the condition of swarming. 2. It will be best to furnish them with queens.—J. P. H. BROWN.

1. Let them swarm; natural swarms are the best, although there are times when it is well to make swarms by division. 2. If your bees are of a good strain, let them rear their own queen-cells.—MRS. L. HARRISON.

1. Knowing nothing of your locality or ability, I cannot answer your first question, but for myself, I should divide colonies. 2. Much depends. I should furnish fecundated queens, in my own apiary.—J. E. POND.

1. To divide early, would be bad policy. I would get them as strong as possible by swarming time, and let them swarm. 2. If divided, the queenless colony should be supplied with a queen or a queen-cell.—M. MAHIN.

First, in this locality, I should let them swarm, in which case they would attend to the matter of queening.—JAMES HEDDON.

Provide laying queens, and divide the colonies not later than May 1, if the weather is good. If further south than this locality, divide earlier; if further north, do it later. They may need feeding to get them to full strength by June 1.—J. M. SHUCK.

1. To divide them has many advantages over the natural-swarming system, and if judiciously managed, no doubt it will give you the best results.
2. Furnish them with queens.—J. M. HAMBAUGH.

If you desire any surplus honey, I should say let the bees swarm once naturally, and manage them on the Heddon plan. Should they not swarm, they may be divided later in the season, when the honey crop is about over. Do not divide them in the spring. In dividing, it is well to give the queenless part a queen, or queen-cell, from a colony that has swarmed.—C. H. DIBBERN.

1. I think that depends upon whether your principal honey-flow comes early or late in the season. If the latter, dividing might work well, if you can get two strong colonies ready for the harvest in place of one. I should not divide, however, until near the time for natural swarms. 2. You could let some of the colonies rear all the queen-cells that they naturally would, and utilize the best of these to supply others.—EUGENE SECOR.

1. It may not be pertinent to the question, but I think that it is a mistake to attempt to increase your bees to any greater extent than results from natural swarming, allowing no more than one prime swarm from any colony. You may make a big show by rapid increase of colonies, but "solid cash" will not materialize. 2. If you must divide your colonies, wait until swarming time. It pays best to give the divisions queens at once.—G. W. DEMAREE.

Without knowing anything of your locality, or the amount of your experience or ability to accomplish what you desire to do, it would probably be safer to advise you to let them swarm naturally, and let the old colonies rear their queens.—THE EDITOR.

**A Favorable Word** from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

## CORRESPONDENCE.

## CANADA.

## Report of the Ontario Bee-Keepers' Convention.

Written for the American Bee Journal  
BY R. F. HOLTERMANN.

The annual meeting of the Ontario Bee-Keepers' Association was held at Owen Sound, Ont., in the Council Chamber, commencing at 2 p.m. on Jan. 8, 1889.

The annual meeting has not had a smaller attendance for at least eight years, and probably never. It must, however, not be considered that the association is losing ground—far from it—the membership for 1888 was 231; nor must it be charged that bee-keepers do not desire to attend, but the reasons probably were, the poor season of 1888, the locality, and the bad roads all over the country, making it difficult to get to railway stations.

President Martin Emigh, of Holbrook, occupied the chair. Among those present were, Messrs. Gemmell, R. E. Smith, A. Pickett, R. McKnight, S. Corneil, W. F. Clarke, F. H. Macpherson, J. Miller, Wm. Couse, R. F. Holtermann, D. Anguish and G. Barber.

After the roll call, and reading of the minutes, the reports of the Secretary, Treasurer, and others, were read and approved.

The Secretary, Wm. Couse, stated in his report that about 1,000 invitations had been sent out, and largely responded to by the bee-keepers.

R. McKnight, the Treasurer, reported about \$450 on hand, \$200 of which had been set aside to secure Langstroth's revised book for the members of 1887.

The auditors, J. Miller and R. F. Holtermann, reported that the books were audited, and found to be correct.

## EVENING SESSION.

Mr. Emigh then read the President's annual address.

An essay was then read from Mr. S. T. Pettit, of Belmont, Ont., as follows, on

## Priority of Location.

About two years ago, when this thought was presented at the annual meeting of the Ontario Bee-Keepers' Association, the principle seemed to be something of small value, and but little notice was taken of it. Not long after, however, Mr. James Heddon called attention to it, and wrote approvingly, but Mr. Jones thought that it was a case of "the survival of the fittest."

Soon after this, in 1887, a characteristic letter from the pen of Mr. R. McKnight was published, in which we find the following:

"There are some in the fraternity whose generosity would lead them to squeeze out the weak and the small. They would go still further and circumscribe operations in rural districts by a new force known as 'Priority of Locations'—root out big and little from towns and villages, and put the business in the hands of specialists."

"The new doctrine of priority of location is the most presumptuous of all the claims the monopolists amongst bee-keepers have yet hinted at. Such a doctrine is begotten in selfishness, and opposed to justice."

Who in the present age is bold enough to assert that Mr. McKnight is not an original and profound thinker? Listen, while I repeat the strikingly characteristic terms employed—"root out big and little," "the most presumptuous," "the monopolist," "begotten in selfishness and opposed to justice." But just how leaving a man to enjoy his chosen locality without the crowding of bees other than his own, will so operate as to "squeeze out the weak and the small," and "root out big and little from towns and villages," I confess inability to comprehend, and I suppose ordinary mortals will plod on just the same as though that composition had never been written.

"Amateur Expert" writes: "And having done so, proceed to walk into some of the abuses he (James Heddon) so loudly denounces, and then walk into him if he talks of priority of location, etc., and it would be all in good humor." Why, to be sure, "A. E." that is the proper way to do things. Then "A. E." says, "don't you know that we are free traders and stout upholders of a fair field and no favors? or else how would the priority-of-location doctrine suit our Canadian brethren when they look for a share of our market?"

Replying I will state that I am willing to believe that "A. E." has not given the subject due thought, or else he would see that our purposing to assist in placing within the possible reach of England's millions of hungry and poor, who in all probability never in their lives have enjoyed the pleasure of eating so much as one pound of honey, is a very different thing altogether from squatting down by another already in the business, to the injury or disaster of both; the dissimilarity will be all the more conspicuous when we reflect that we have plenty of inviting unoccupied fields, and that England must look to the outside world for food, or perish. Plainly enough

the two cases are not parallel, and not comparable.

Mr. W. F. Clarke says: "Priority of location is another matter which is attracting much attention among bee-keepers. It is proposed by some to pass a law securing to the first comer as a bee-keeper into a neighborhood, the exclusive ownership of the bee-forage within certain limits." Well, I must say that if such legislation has ever been proposed, or even hinted at, it has entirely escaped my notice. I cannot help thinking, however, that Mr. Clarke was drawing upon a much abused imagination when he wrote that statement. But the President, still believing in priority of location, in his annual address of a year ago, again called attention to it. Now permit me to give a few quotations to show that the principle has taken deep root in the better judgments of bee-keepers generally, the fruits of which will be sweet and refreshing to many in the business.

Mr. Allen Pringle says: As to who ought to engage in bee-keeping, and who may engage in it, these are questions which each individual has the natural right to decide for himself, so long as he keeps within both the moral and the civil law. When the latter excludes him from corporations, he has no right to violate it, and when the former excludes him from preoccupied ground, he has no moral right to violate that either.

From a dialogue between Prof. Cook and Dr. C. C. Miller, at a Chicago meeting of the North American Bee-Keepers' Society, I gather that Prof. Cook also believes in the principle.

Mr. D. A. Jones now not only concedes to others priority of location, but advocates it as well. He says: "To me it seems that the question of priority of location bothers some more than it need. There are those who make comparisons of bee-men and store-keepers, etc., but such comparison is not applicable." Then again he says: "With those points in view, no practical man will seek entrance to a section of country already comfortably occupied."

And now we may rejoice in the fact that priority of location, backed up by sound public opinion, "has come to stay" until the time shall come when in the march of progress on all sides, apiculture shall receive that attention from the people, and from Legislators, that its growing importance merits, and it shall be placed upon a legal, and therefore upon a more solid and satisfactory basis; when justice through wise legislation can be done to all the people; and even then the principle of "do unto others as you would that they should do unto you," will be of



service in the new order of things, as an outside guard to watch and ward off the operations of unprincipled parties who may be disposed to appropriate that which belongs to others.

And in conclusion I will say, that because I have enjoyed the privilege of collecting the nectar from my neighbors' fields, orchards and forests, for a dozen years and more, and that although during all these years I have done them good and not evil; that all this does not make me the owner of the nectar of future years—without a doubt in my mind it belongs to the owners of the soil, whose it is, and who have a right as a community, to control the disposal of it in a just and equitable manner, just as surely as they have the right to dispose of any other valuable product of the soil. But in the meantime let us all appreciate and rejoice in the security that the priority-of-location-principle affords us. I am strongly impressed with the conviction that any bee-keeper who in the future shall introduce himself upon preoccupied ground, will realize that public opinion justly censures him.

S. T. PETTIT.

Mr. McKnight said that he regretted that Mr. Pettit was not present, and under the circumstances he would but briefly say that what he had written he had no reason to retract.

Mr. Corneil said that the essay, in his estimation, was all right to insert in a bee-paper, but not the kind of an essay that would be expected to be read before a convention.

Mr. Clarke said that he would only take Mr. Pettit's own essay to prove that the writer of it himself advocated legislation.

Mr. Holtermann, who read the essay, pointed out that in reference to Mr. Clarke, Mr. Pettit, in his essay, never said that he did not advocate legislation, only he did not advocate the kind that Mr. Clarke had said was proposed.

A motion was then made that a special general meeting be held of the Ontario Bee-Keepers' Association, at Brantford, during the time the International meets there, and that a delegation be sent to represent the Ontario Bee-Keepers' Association.

Mr. Holtermann asked if this was to be the annual meeting, and was told that it was not. Mr. H. then stated that Messrs. Anguish, Barber and himself were a deputation from Brant, to ask the Ontario Association to have their annual meeting at Brantford, at the same time as the International; that he, as the Secretary, could tell them that the reason the date of the annual meeting had not been fixed by the International, was because they wanted to meet the Ontario in any way

possible; he knew the law demanded that the Ontario Association fix the date of their annual meeting at this meeting, but there was no reason why arrangements could not be made for both to meet at the same time.

Messrs. R. McKnight, W. F. Clarke, S. Corneil and F. H. Macpherson opposed having the annual meeting at the same time as the International, claiming that the business of the Ontario Bee-Keepers' Association could not be done properly. Mr. Holtermann claimed that then, as now, the directors could meet before and after the sessions, and they transacted the most of the business.

As he could not make a motion to fix the place of meeting, until the next day, according to the programme, he would move that the question be "tabled" until that time. Whereupon Messrs. McKnight and Clarke withdrew their motion until that time.

Discussions followed upon "Ventilation," the majority being in favor of ventilating hives and repositories.

In discussing the advisability of preventing bees from breeding early indoors when wintering, some were in favor of having them breed early, others not until after being taken out, opinions being pretty well divided. In wintering bees in clamps, some objected to moving the hives together, but advocated separate clamps for each hive.

## SECOND DAY.

### MORNING SESSION.

The convention was called to order, with President Emigh in the chair. The election of officers was then held, and resulted as follows: Rev. W. F. Clarke, President. Mr. Emigh, the President for 1888, who had refused to serve a second term for President, was elected Vice-President.

The directors of the various agricultural districts were elected as follows:

J. K. Darling, Almonte; M. B. Holmes, Delta; Allen Pringle, Selby; S. Corneil, Lindsay; Wm. Couse, Streetsville; A. Pickett, Nassagawaya; Will Ellis, St. Davids; D. Anguish, Mohawk; R. McKnight, Owen Sound; F. A. Gemmell, Stratford, and R. E. Smith, Tilberly Centre.

It was then decided to fix the place of meeting before electing auditors. After some more discussion, Belleville was selected for the next place of meeting (Brantford receiving 6 votes and Belleville 7), on the second Wednesday and Thursday of January, 1890.

It was decided that a special general meeting be held at Brantford, at the time the International meets there, the President, Vice-President and direc-

tors being appointed a delegation to represent this Association.

The election of auditors was then held. Mr. Macpherson stated that the Arts Act did not require the auditors to be members, and nominated Mr. Walbridge. Mr. Holtermann claimed that he must be a member. Mr. McKnight said not, and so did Mr. Corneil; and Mr. Walbridge was elected. Another, not a member, was nominated, when Mr. Holtermann again protested. An eminent lawyer, the Mayor of Owen Sound, who had just welcomed the Association, being present, the decision was left to him, Mr. McKnight jokingly remarking that there must be no "fee." The Mayor declared Mr. Holtermann to be correct. W. P. Taylor, of Fitzroy Harbor, and R. F. Holtermann were then appointed auditors.

### Hive-Ventilation in Winter.

Mr. Corneil, in his essay, explained the action of the currents of atmosphere of various temperatures coming in contact. The temperature of the hive was generally about 59° or 60°, whilst the outside temperature in the repository was much lower, and that of the open air as in outside wintering, is even greater. This caused a constant change of air in the hive.

Mr. Corneil had two 2-quart pails—blackened so as to cause greater radiation—suspended in the hive, and by this means secured a higher temperature in the hive than that in the room where the experiments were conducted. A wick, ignited, was then suspended in the hive, filling it with a dense smoke. By this means the direction of the currents of atmosphere could readily be detected.

The experiments conducted by Mr. Corneil showed that the tendency of the currents of air, under the conditions named, is upwards. That if there be but one entrance, as in the ordinary ventilator, and the atmosphere has to enter and make its exit at one opening, the current does not come in at one side and go out at the other, but is divided horizontally, going in at the lower half, and coming out again at the upper. Again, that if the entrance is divided horizontally, by even a piece of paper only, it prevents friction between the two currents, and the circulation may be quite free; whilst if not so divided, the friction between the two currents almost stops the circulation with the ordinary entrance. For this reason an upright ventilator is better than one horizontal, if there be only one ventilator.

Mr. Corneil appeared to favor a rim being placed under the brood-chamber, and between it and the bottom-board. One ventilator, the front one,

should be at the top of the rim, the other in the rear, at the bottom of the rim; this allowed a gentle current of atmosphere to pass through the hive. The entrance, or ventilator, should be regulated by the strength of the colony, an average colony having the ventilator equal to about one square inch in size. If the bottom-boards were tight, the rim could be placed over the brood-chamber. The ventilators should always be placed at the ends of the frames.

Mr. Corneil, at the close of his essay, was plied with numerous questions, which showed the interest that the members took in the question.

Mr. Allen Pringle, of Selby, then read an essay, on

#### Bees for Pleasure and for Profit.

The number of persons who keep bees merely for the pleasure of the thing, is probably very small, compared with those who keep them for the profit that is in them. A few, however, actuated by the spirit of research, or by curiosity, or a love of natural history, or perhaps in quest of recreation and health, keep bees without the usual dollars-and-cents motive. I think that I will be quite safe in assuming that every member of the Ontario Bee-Keepers' Association, however much pleasure he may get from his bees, has, at the same time, his "weather-eye" open for the profit—be the same more or less.

Wherefore, I may, I think, dismiss this minority class of pleasure apiarists with this brief reference, throwing after them our very best wishes, if not our admiration, and turn attention briefly to bees for profit.

It appears to me that the bees-for-profit-man also gets a great deal of the pleasure, especially when the profits are large. There is one advantage he has over the other fellow. It is almost astonishing how pleasant nearly every kind of business (or no business) will become to a man when it "pans out" properly. This is human nature as it is—what it *ought* to be we will leave for those who come after us. I shall, therefore, very briefly consider the question of bees for profit.

#### Bee Keeping with other Business

In the first place, I think that bee-keeping pays best in connection with some other business. I would not care to advise any friend to go into the business of bee-keeping, as an exclusive means of support. The past few seasons have brought to light new and better conclusions on this subject. If, like Manitoba farms, and their wheat, we could raise so much honey that we could afford to go without any the next year, the case would be different. But

as the profits of bee-culture, at best, are only say good, or in the fairly living line, the specialist with nothing else to fall back upon, will occasionally find himself coming "out of the little end of the horn," as he comes out of his fiscal year.

As to what kind of business may be profitably supplemented by bee-culture, that depends upon circumstances, and must be decided by each one for himself. The farmer naturally thinks that bee-keeping ought to be in association with farming or some branch of agriculture. So of the school-teacher, mechanic, and others. Although the unavoidable drawbacks to bee-keeping for profit are numerous enough and formidable enough, much, very much, as in everything else, depends upon the man. There are certain conditions of success in every business. Only in rare cases do people stumble upon profitable success. We must work for it, and the work must be well directed.

The bee-keeper who succeeds and makes the business pay, must work well, with his hands, and still better with his head. To come down from the general to the particular, he must have the right kind of bees in a good style of hive, and then must look after them as carefully and intelligently as he would after his stock, or even the children. What might be the best hive for somebody else, might not be the best hive for him, and the same of bees.

For lady bee-keepers and timid men I should recommend the Carniolans or Italians. In hives, the Jones or Langstroth for amateurs is easily handled. So long as the hive is a good movable-frame one, not so much depends upon it as upon the man, and strict attention to business.

The profits of bee-keeping are materially affected by the mechanical part of the business. To economize in this, the bee-keeper ought to make himself handy with tools, and get everything made and ready during the winter months when he has time.

#### Marketing the Honey.

The profits are also largely affected by the bee-keeper's method of marketing. He may have a good crop and fool it away, as I have seen people do more than once. He gets in a great hurry to sell it as soon as he gets it, and either consigns it to some unknown and irresponsible commission man, or unloads it upon his local market just for what it will bring. In either case the result, as to profit, is generally not profit, but loss.

I would say, be patient in marketing, and sell at home. As a rule, leave the commission man alone.

When you have a surplus from the home market, send your sample ahead, make your bargain, and then ship according to agreement, C. O. D. When you cannot sell for cash (as also happens with excellent home customers) resort to *barter*—goods for goods—and these can always be used or turned to account some way.

I know of but one way to make bee-keeping pay, and that is to handle the bees and their products as they ought to be handled. As to how, in detail, both ought to be handled, each must learn for himself by observation, reflection, experience, books, bee-papers, etc.

ALLEN PRINGLE.

The Hon. Charles Drury, Minister of Agriculture, was elected an honorary member. After some changes in the Constitution and By-Laws, the convention adjourned to meet at Belleville in 1890.

Brantford, Ont.

### SWARMING OUT.

#### Cure for New Colonies Leaving the Hives, etc.

Written for the American Bee Journal  
BY WILLIAM CROULEY.

What apiarist has not had trouble from this cause? I think that I am original in discovering a very simple remedy for it; at least I have not seen it in print. It is as follows:

As soon as I have a swarm, I put a drone or queen trap at the entrance of the hive, and leave it for three days. I had several swarm out through the trap, but they came back faster than they went out, as soon as they discovered that the queen did not come out, and went to work in earnest, and did not try it again. The trap should reach clear across the front of the hive.

#### Preparing Bees for Cellar Wintering.

My bees are wintering finely. I never had them so quiet in the cellar as they are this winter. I never lost but one colony in the cellar, and that one starved last winter. I think that my plan of preparing them for the cellar is a good one, and as it may be beneficial to some of the fraternity, I will describe it:

My hive bottom-board is the same width as the hive, with a 2-inch rim on the under side, and 4 inches longer than the hive. I use the blank-strip super, the same size as the hive. I put a quilt in the bottom of the super, and fill it with sawdust, dry leaves or chaff, and put it on top of the hive.



There is a bee-space between the super and the top of the brood-frames.

When I put the bees into the cellar, I turn the bottom-board upside down, which leaves a 2-inch space below the frames; and as the bottom-board is longer than the hive, I can see the under surface of the frames, by holding a light in the right position; and looking under once a week, I can detect any unusual mortality.

It is a pleasure to go in the cellar when the temperature is below zero, and see the clusters of bees as large as the top of my head, some of them hanging 2 inches below the frames, and resting on the bottom-board. Very few dead bees have dropped down yet.—I think that I could get them all into a quart measure, from 85 colonies.

Redwood Falls, Minn.

## MAINE.

### Proceedings of the Bee-Keepers' Convention.

*Reported for the American Bee Journal*  
BY L. F. ABBOTT.

The ninth annual session of the Maine State Bee-Keepers' Association was held on Jan. 8, 9 and 10, 1889, at Brunswick. This meeting was designed to unite all the local societies in the State, in one grand convention. The Maine State Society is the oldest organization. Next is the Western State Society, formed some three or four years subsequently, and later the Maine Apicultural Society, organized three years ago, but which has done but little towards discussing the bee-question. Although the past season has been the poorest in the annals of bee-keeping in Maine, a fair representation was present at the opening session.

The opening discussion, set in motion by the President's address, turned mainly upon hives and the wintering problem.

### Factors of Success in Bee-Keeping.

Rev. C. M. Herring, of Brunswick, who had success in bee-keeping, made some points in his address which will be of interest to note. He alluded to the unstable character of the enterprises in which men engage. Success and failure are common to all. In bee-culture, the failures are frequent, which should lead to the inquiry, where lies the road of success? He would say, first in the man. One should understand the nature of these insects, and so comprehend their wants. Second, another secret of success lies in the bee, and mainly in the blood. All bees, like all men, are not

of equal value. As with horses, cows, sheep and swine, blood will tell. We find in all organic life that interbreeding of the same blood diminishes the vital forces; and also that continued crossing between the different races, improves the stock. It is a mistake to think that all bees are alike. Another factor of success lies in the hive—a hive of the right size and form, and made to protect from cold. The best requisite he would name for the hive is thick walls; next the cubic form, so that the bees can mass in close proximity to the stores. These two ideas he held firmly as a means of success.

The discussion of the points presented in the President's address called out quite diverse opinions. Mr. Greeley, of Clinton, took quite a strong ground against the cubic form of hives. Dr. Morton, of Bethel, seconded Mr. Greeley's views. The discussion revealed the fact that nearly all the bee-keepers were using the oblong frame of the Langstroth pattern. Mr. Reynolds, of Clinton, was of the opinion that chaff hives were superior to wooden walls. Mrs. Hinckley, of Bowdoinham, believed in protecting hives in winter. The practice is quite well established by placing bees in the cellar, as the safest place to winter.

### Races of Bees.

Mr John Reynolds, of Clinton, gave his ideas as to races of bees. He thought that each one should decide for himself the value of many things in use in bee-keeping, and in regard to different races of bees. In his opinion, climate creates races of bees; races succumb to climate. Maine's climate creates a dark race of bees; the climate of Italy and the Isle of Cyprus originated a yellow race of bees. Different races are all equally good, perhaps, in their own locality. In his opinion, whoever attempts to keep all races of bees in one locality, will not succeed.

An essay by Mr. I. F. Plummer, of Augusta, contained some points and suggestions.

### Local Bee-Associations.

Mrs. W. M. Hinckley, of Bowdoinham, sent an essay, mainly devoted to suggestions concerning the work of the associations. She thought that every town where bees are kept should have a regularly organized society of bee-keepers, holding meetings and comparing notes at least twice a year. There should be one central State society, composed of the Presidents and Secretaries, or of specially elected delegates from each town in the State, regularly incorporated, with power to elect its own officers from members as

furnished by the town societies, and to transact business as its necessities demanded.

The State society should select careful, intelligent men in every part of the State to superintend the careful testing of the different races of bees, the different methods of handling, feeding and swarming; the various hives before the public, especially those that have secured such a foothold in the public mind as to allow them to claim standard merit; all the different frames and tools and methods of manipulation in use, and who shall clearly and faithfully report their observations to the Secretary of the State society at the close of each season's work.

### The Home Market for Honey.

One of the questions discussed was, "Creating a Home Market." Mrs. Crockett, of Foxcroft, sent an essay which was read by the Secretary, giving her views upon the subject.

Mrs. Crockett spoke of the difficulty of getting the idea established that honey is a staple article of diet, rather than a luxury, and cheaper than berries and canned fruit. One thing that will go far to make a market, is to convince the consumers that the honey we put upon the market is absolutely pure, and hence, a healthy article of diet.

There are confused ideas among customers regarding extracted honey, many believing it to be impure. Hence, we drop the term and call the product comb and "strained" honey, the latter term being a familiar one years ago when bees were kept in box-hives.

The essayist preferred to sell honey direct to consumers rather than sell in the wholesale market.

The profit the trade puts on, above the wholesale cost, brings the product too high, so that the masses cannot afford to purchase it; still if we sell direct to the consumer, and furnish those who prefer comb honey with the best quality at remunerative rates, we shall find plenty to take our second quality for one or two cents less per pound. It pays to have the sections clean and nice, and the clear honey put up in attractive form.

### The Feeding of Bees.

How to feed bees in the fall economically and with the best advantage to the colony, was the subject of some discussion. Mr. Greeley gave his plan of late feeding, by turning thick sugar syrup, slightly warmed, directly into the combs. Colonies so fed late in October capped the combs so treated, and he expected them to winter well on the same.

Feeding in the cellar with frames of sealed honey might be accomplished

at any time, by moving the central frames on which the bees were clustered, and placing frames of honey near the bees.

#### Destroying Moth-Worms.

Moth-worms were frequently found in hives, and in box-hives used to do much damage, but with the frame hive and Italian bees, moth-larvæ were of little account. It is stated that the freezing of eggs or larvæ destroys their vitality.

It was thought best not to extract the combs when working for comb honey.

It is considered an advantage to shave brood-combs to  $\frac{1}{2}$  of an inch when putting on surplus cases, thus uncapping the sealed honey at the tops of the frames, and letting the cappings and honey run down between the frames. Then space the frames to a bee-space— $\frac{1}{8}$  inch—and place on the sections.

Our best honey producers used the queen-excluding zinc honey-boards, thereby obviating the trouble often experienced, of brood in the sections.

Well constructed chaff hives were recommended as preferable to single-walled hives, especially for out-door wintering.

Races of bees were a constant theme of discussion among bee-men of the country, but the blacks and the Italians were still the chief races for profit.

The whole machinery of bee-keeping is complicated. It takes years of practice to become conversant with the various ways of manipulating this wonderful little bee.

#### Dividing Colonies.

Dividing colonies may be profitably and readily practiced after one knows how. It needs practice in handling bees, and familiarity with their ways, to successfully accomplish profitable dividing. It may be done by dividing a strong colony and, finding which section is queenless, give it a laying queen, or else allow the bees to rear a queen.

Another method, involving the same principle, is that of forming nuclei colonies, by putting a frame of brood in a hive, give it a laying queen, then build up from different hives by giving the young colony frames of brood.

Mr. Pike, of Livermore Falls, gave a method of shaking from the frames of a strong colony bees sufficient, into a box made for the purpose, to make a colony—bees from different hives could be mixed in this way, care being used in all cases, not to shake out the queen with the bees.

Keep this mass of bees 24 hours, run a laying queen amongst them, and

hive the bees in the ordinary way, and the colony would go to work with the bee's accustomed alacrity.

The officers chosen were: President, Rev. C. M. Herring, of Brunswick; Secretary, Dr. J. A. Morton, of Bethel; Treasurer, W. H. Norton, of Skowhegan; with one Vice-President from each county.

Lewiston, Maine.

#### WINTER SONG.

Summer's joys are o'er;  
Flowerets bloom no more,  
Wintry winds are sweeping;  
Through the snow-drifts peeping,  
Cheerful evergreen  
Rarely now is seen.

Now no plumed throng  
Charms the woods with song;  
Ice-bound trees are glittering;  
Merry snow-birds, twittering,  
Fondly strive to cheer  
Scenes so cold and drear.

Winter, still I see  
Many charms in thee—  
Love thy chilly greeting,  
Snow-storms fiercely beating,  
And the dear delights  
Of the long, long nights.

#### HONEY-BOARDS.

##### The Invention of the Wood-Zinc Honey-Board.

Written for the American Bee Journal

BY DR. G. L. TINKER.

In the report of the late Michigan Convention, on page 23, Mr. Heddon objects to my claiming the wood-zinc honey-board! It has been a surprise to me from the first, that he should, on so slight a pretext, claim this invention as his own, and seek to deprive me of the credit that rightfully belongs to me as the original inventor.

It seems that Mr. Heddon had tacked strips of perforated-zinc on his slatted honey-board, and so used them, but had not conceived the idea of placing the strips in saw-kerfs in the edges of the slats till he saw a wood-zinc honey-board of my construction at the Kalamazoo State Fair, in September, 1885. Yet he now says it will probably never be known who was the prior inventor! Mr. H. has assumed that tacking on the strips was equivalent to placing them in saw-kerfs. If he really thought so, why does he not use the strips now as he did in the first place?

But he was free to state at the Fair (of which I have reliable proof) that my wood-zinc honey-board was a "new thing." Had it not been, he would have stated there and then, that he had used the perforated-zinc in the same way. Instead of that, he said nothing until several months after,

when he set up his first claim as its original inventor!

Mr. Heddon admits that I constructed the first one (he having simply the idea), and first published it, which should settle the matter for all time. But the "idea" he had, was simply tacking on the strips!

The wood-zinc honey-board is an improvement of the slatted honey-board. The first and original honey-board had auger-holes or slots to correspond with openings in the honey-boxes that were placed upon it. Father Langstroth was the well-known inventor, and he possessed the genius to create an original idea. Mr. Heddon desires to be thought an original inventor, but he has credit only for a keen perceptive faculty, for all of his "inventions" have been based upon original ideas already advanced by others.

The honey-board being invented, it was natural that many modifications of it should follow, and the slat honey-board was one of them. Thousands of them were in use in this country before Mr. Heddon ever wrote a line on the subject. Even his identical break-joint sink honey-board (see *Gleanings*, Vol. XIII, page 173) had been invented and in use for many years before Mr. Heddon wrote of it. But he was quick to perceive that it could be made a good thing, and he deserves all the credit that attaches to it as a modification of the Langstroth; for he introduced it to the public, and first made known its general value in our modern methods, and takes just pride in having it called "the Heddon honey-board."

Now I have invented the wood-zinc honey-board, giving to the original slat honey-board a distinctly new function. I have since added the essential features of the Heddon honey-board, but Mr. Heddon "objects" to my advertising it as "Dr. Tinker's wood-zinc honey-board," and would deprive me of a right which he is free to take of Father Langstroth, and other predecessors!

Again, Mr. Heddon modified the Moore crate, and called it the "Heddon case," and would be vexed if any one dared to question his right to so call it. Shall I therefore forego a privilege he is free to take and respect his "objection" before the Michigan Convention; because he has an invalid patent on the old slatted honey-board, which, not even in one of its features, was he the original inventor? Certainly not!

I regret that Mr. Heddon should not want to use one of my inventions without laying some sort of claim to it. It is public property, and any one has a right to manufacture and use it, ex-



cept on Mr. Heddon's divisible brood-chamber.

My purpose from the first was, that it should be free to all bee-keepers to make and use. I afterwards sought to control its general manufacture by a patent, and in a pending application of Mr. W. S. Kline and myself, laid claim to it, which was duly allowed. In assigning this claim, the Patent Office decided it a "misjoinder," and it had to be cancelled. It was learned subsequently that a patent, if obtained, would be invalid, owing to certain decisions of United States courts that were unknown to me. Hence, no further action was taken or desired. It is sufficient to know that it was a patentable invention, and that I could yet obtain a valid patent, if I had not made the invention public, as stated by Mr. Heddon. I have suffered no loss in the matter, and now only desire the credit that clearly belongs to me; and I shall insist, that if this honey-board is to be called anything else than a wood-zinc honey-board, it shall be designated as "Dr. Tinker's."

In opposing the use of two-rowed zinc in my honey-board, Mr. Heddon says—"great and expensive mistakes are made regarding this point." But should he make ten times the number of tests with his bees to prove his position, it would not help the matter a particle. The general facts on this point are *exactly as I have stated*. His bees are mainly blacks and hybrids, and it is well-known that these bees will go through small auger-holes, and store honey, when Italians will not, as a rule. So Mr. Heddon's tests in the matter are not worth a fig. While his bees may work fairly well through a few queen-excluding holes in his honey-boards, mine will not; and nine out of ten of all the colonies in this country will not!

Again, two-rowed zines used in my honey-boards practically opens up the way to a super of open-side sections, or to an extracting super, so perfectly that it is like placing an empty box on the hive, as regards giving room to prevent swarming, and the result is the same.

Now I will be kind enough to tell Mr. Heddon that one of my honey-boards used on one division of his hive will almost entirely overcome the tendency to swarm out of such contracted quarters. Some of the bee-keepers using his hive have had to re-hive swarms from five to six times before they would stay; and in a large apiary the annoyance has been a serious matter, requiring the use of a queen-trap before every young swarm. One division of his hive is too small, and the whole brood-chamber is too large for a swarm, but if those who have his

hives will use my honey-boards, they will succeed far better.

I am tenacious of the point that the zinc strips should be let into the slats nearly up to the rows of perforations, so that the bees can get a ready foothold on the wood, and get through the zinc without a struggle. While solid sheets of perforated zinc are not a failure, still they are not equal to my wood-zinc honey-board, and can never be made the equal.

#### Storifying Hives.

As to the use of the English word "storify" instead of the word "tier," I consider it the more elegant and expressive term. I desire no credit for its original use. Our English brethren have long used it synonymously with our use of the word "tier." I have never applied the word to the management of the Heddon hive as alleged. Not even in one instance did I operate the Heddon hives I had, on the plan given in my new management of bees.

I supposed Mr. Heddon knew that my apiary had been run for years for experimental purposes, and that I had many kinds of hives in use. The new management is to be credited to the invention of the wood-zinc honey-board.

New Philadelphia, O.

[We cannot afford space to unimportant disputes where nothing is at stake but personal glory. Messrs. Heddon and Tinker have each presented his side of the controversy, by one article—*now let that suffice*.

This dispute concerning the "priority of invention" may be settled amicably by simply calling it "the wood-zinc honey-board," omitting any personal name.—Ed.]

### VERMONT.

#### Report of the Vermont Bee-Keepers' Convention.

Written for the American Bee Journal  
BY J. H. LARRABEE.

The annual convention of the Vermont State Bee-Keepers' Association was held in the Town Hall at Middlebury, Vt., on Tuesday, Jan. 15, 1889.

At 10 a.m. the convention was called to order, with President Holmes in the chair. After routine business, the first subject of interest discussed was,

#### Wintering of Bees in Special Repositories.

The discussion was led by J. E. Crane, who had for many years wintered hundreds of colonies out-of-

doors. During the past two or three years he had experimented quite largely with cellar wintering, and at the present time he has about 150 colonies in a special repository under his residence. He had no special means of ventilation in the repository, except a pipe connecting with the chimney. The cellar was very dry. When first put in, the bees were the most quiet at a temperature of from 50° to 55°, and in some cases even at 60°. Towards spring, however, the temperature should be lowered, or early breeding and uneasiness would result.

Mr. C. had placed his bees in the cellar early, and not removed them until natural pollen could be obtained, even six months confinement proving safe, if the bees are quiet. He had been very agreeably surprised in the results obtained, as the bees wintered in-doors had compared favorably in results obtained with the bees of his other apiaries wintered in chaff packing.

The above came as a revelation to the most of those present, as only some five or six wintered their bees in cellars. Much interest was manifested, and many questions asked, in reply to some of which Mr. Crane stated, that he ventilated each hive by raising the cover  $\frac{1}{4}$  of an inch at one end; that the consumption of honey per colony in the cellar was less than out-doors, but he could not state the saving in honey to the bee-keeper, as much honey was consumed in the spring.

Next followed reports of winter losses for the winter of 1887-88, which showed that the losses were heavier than usual, some of our best bee-men reporting from 10 to 20 per cent., and some (notably Mr. F. H. Walker, of Manchester, who lost 80 colonies out of 167) were somewhat discouraged in consequence of it. Sympathy was not lacking.

#### AFTERNOON SESSION.

At the opening of the afternoon session, a new Constitution was presented, discussed and adopted. It is hoped that this Constitution will broaden the field of labor of the Society, and promote its usefulness. All members under the old Constitution become members of the "new," by the act of signing it.

The following Board of Officers were then elected:

President, R. H. Holmes, of Shoreham; Vice-Presidents, one from each county represented, viz: Addison county, J. E. Crane, of Middlebury; Bennington, F. H. Walker, of Manchester; Chittenden, Geo. Beecher, of Essex; Caledonia, J. D. Goodrich, of East Hardwick; Franklin, B. P. Greene, of St. Albans; Lamoille, J. W. Smith,

of Stowe; Orange, M. F. Cram, of Braintree; Orleans, A. J. Albee, of Derby; Rutland, H. L. Leonard, of Brandon; Washington, D. S. Hall, of Lower Cabot. Secretary and Treasurer, J. H. Larrabee, of Larrabee's Point.

Then followed a very valuable essay by Mr. V. N. Forbes, of West Haven, on

#### Bee-Pasturage.

Alsike clover was the plant that Mr. Forbes most recommended, and had obtained satisfactory results therefrom. That his assertions were founded upon experience, was proved by the fact that during the past year he had furnished 1,000 pounds of Alsike clover to his neighbors. It had proved profitable both to them and to him. He bought at wholesale, and sold at a slight sacrifice.

#### The Spraying of Fruit Trees.

In the discussion which followed, Prof. Seeley, of Middlebury College, who was present, was asked his opinion of the results upon bees produced by the spraying of fruit trees with poisons. He thought that no bad effects would ensue in any case, but suggested that the bee-keeper should hint to fruit-men, that the best time to spray fruit was after the blossoms had fallen, and supported the assertion by facts.

Mrs. E. S. Brainerd, of Orwell, next read an essay on,

#### Marketing of Honey by Small Producers.

She dealt direct with consumers, and furnished only a first-class article. She is entirely independent of commission men.

The President remarked that we should not condemn the commission men too hastily. He had visited the market last fall, and had his eyes opened with regard to the shipping and handling of honey in Boston.

#### The Bee-Keepers' Union.

Extracts from reports showing the object and uses of the "Bee-Keepers' Union," were read by Miss Douglass, of Shoreham.

Mr. Manum stated that he had been a member since its formation, and he urged its claims very strongly. It is hoped that Vermont bee-keepers will avail themselves of its privileges, especially since an act was introduced in the last Vermont Legislature, prohibiting the keeping of bees within 40 rods of the highway. However, this Bill was promptly killed.

#### The Chapman Honey-Plant.

Mr. Manum, who was one of the committee appointed some two years ago by the National Bee-Keepers' So-

ciety, to report with regard to the "Chapman honey-plant," said with regard to it, that although it furnished honey bountifully, he did not believe that it paid to raise it exclusively for honey. The seed he knew to be good for poultry, and if an oil could be pressed from it, and the residue used in the manufacture of quinine, so as to pay for cultivation, he should esteem it highly for the bees.

A letter was then read by the Secretary, from Mrs. L. Harrison, in behalf of the Illinois bee-keepers, sending words of encouragement and cheer so sadly needed. The Secretary was then instructed to send the thanks and sympathy of the Association to our fellow bee-keepers of Illinois.

#### EVENING SESSION.

The evening session was very interesting, and it is much to be regretted that many of the members were obliged to return home before evening.

A discussion was opened by President Holmes, on

#### Prevention of Undesirable Increase of Colonies.

There are, said Mr. Holmes, three classes of bee-keepers who may desire to prevent increase, viz: 1. The specialist, who has bees enough to occupy his whole time. 2. The novice, who keeps a few bees for the honey and pleasure of it, and cannot allow them to interfere with his business. 3. Box-hive bee-keepers.

The best way for the box-hive bee-man to prevent increase, does not concern us. The novice, who keeps a few bees may prevent increase by doubling up swarms, as they issue, thus strengthening the weak, and increasing the honey crop.

The best way for the specialist to prevent increase, is a mooted point. However, the speaker had been very successful by removing the queens, keeping all queens young, and by keeping the bees at work. In removing queens he saved the best ones.

Eight or nine days after the first swarm issues, he removes the queen-cells from the parent colony, and introduces a young laying queen, on or after, 13 days from the time the first swarm issued.

From the discussion which ensued, it was plainly evident that upon this subject our bee-keepers were fully abreast of the times.

#### Ancient and Modern Apiculture.

Then followed an essay by Miss G. M. Wolcott, on "An Amateur's Observations upon Ancient and Modern Apiculture," in which she recounted some of the amusing incidents which attended her first experiences with the

bees. By the way, we learn that Miss Wolcott intends soon to take charge of her own apiary of 150 colonies.

J. H. Larrabee read an essay on "English Bee-Keeping."

The session was well ended by an eloquent and interesting address by Mr. Crane, on "The Production of Comb Honey."

The convention then adjourned to meet next year, at the time and place appointed by the Executive Committee.

J. H. LARRABEE, Sec.

#### CONVENTION DIRECTORY.

1889. Time and Place of Meeting.  
Feb. 6.—Northwestern Michigan, at Flint, Mich.  
W. Z. Hutchinson, Sec., Flint, Mich.  
Feb. 7.—Wisconsin State, at Madison, Wis.  
C. A. Hatch, Pres., Ithaca, Wis.  
May 1, 2.—Texas State, at Greenville, Tex.  
G. A. Wilson, Sec., McKinney, Tex.  
May 4.—Susquehanna County, at Montrose, Pa.  
H. M. Seeley, Sec., Harford, Pa.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

#### SELECTIONS FROM OUR LETTER BOX

Wintering all Right.—S. A. & M. A. Goodale, Clear Creek, Ind., on Jan. 17, 1889, write as follows:

In the spring of 1888 we had 21 colonies of bees in good condition. All increase was made by natural swarming. We sold 5 colonies, and put 28 colonies into winter quarters in the fall. We secured 900 pounds of extracted honey, mostly from poplar bloom. The golden-rod and asters supplied abundance of stores for wintering, besides a small surplus. The bees "kept themselves" throughout the summer, and gathered their winter supply of food. This is more than most stock can do. Bees had a good flight Jan. 3, and seem to be wintering "all right."

Good Prospects.—A. M. Rhodes, Bethany, Ills., on Jan. 19, 1889, says:

To say that I appreciate the AMERICAN BEE JOURNAL, does not express my feelings. Bees, as a rule, are in good condition. The prospects for bee-keepers are good.

Importance of Reading Bee-Papers.—Henry A. Hyle, Redwood, N. Y., writes as follows:

My neighbor has kept bees for eight years, and takes no bee-paper. He is a well-to-do, retired farmer. He had 16 colonies of bees, and lost nearly all through carelessness. He had a strong colony of Italians in a chaff hive, but neglected to put them in condition for winter, until too late—Nov. 29. He came to me, saying that his Italians were dead, and requested me to examine them and ascertain the cause of their death. I found that he had left the poor bees on ten frames, without any cover whatever, only the top or cover of the hive. They had plenty of honey, but had huddled in one corner, and



froze to death. The entrance was left wide open, snow had blown in and melted, leaving water on the bottom-board. A piece of old carpet, covered over them on the frames to retain their heat, would have saved them. Near by was a weak colony in a single-walled hive, in one story; they were found in good condition, covered closely over the frames. By not taking a bee-paper, he lost bees enough in one season to pay for a bee-paper during his lifetime. When he gets into trouble, he comes to me for information. There was no surplus honey here last year.

**Results of the Season.**—Mr. C. A. Goodell, Mankato, Minn., on Jan. 15, 1889, writes:

I commenced the spring of 1888 with 5 colonies of bees, and increased them to 10 colonies. I cannot complain of my bees, for I took 350 pounds of comb honey, last fall, from 11 colonies. The bees are wintering nicely in the cellar. My neighbor and I found 8 bee trees last fall. We cut one last November, on a warm day, and I saved the bees, by putting them into a hive with plenty of stores, and they are wintering nicely. I like the BEE JOURNAL better every week.

**Mild and Dry Winter.**—Mr. T. N. Marquis, Wilford, Ills., on Jan. 13, 1889, says:

Bees seem to be all right in my cellar yet. This has been an unusually mild, dry winter here. I am in hopes that I will get a crop of honey in 1889, not having had a crop in four years.

**Bees Under the House.**—Mr. J. S. Willard, Bedford, Iowa, on Jan. 19, 1889, says:

The weather has been very mild here all winter. I have nearly all of my bees in the cellar under the house. It is warm there for them, I think. It is from 42° to 48° most of the time, and 50° or more at times. We keep the temperature down by opening the inside door. I fear that some of them will fly every once in a while when I am in there. Everything about the hives looks dry and nice. I have 36 colonies in the cellar, and 5 out-doors. Last summer we got half a crop, and the two seasons before we had hardly half a crop altogether.

**Good Report for 1888.**—Vincent Quinn, Penn Yan, N. Y., on Jan. 19, 1889, writes:

I thought I would send in my report. From my best colony I got 150 pounds of honey; two second best, 90 pounds each; and two more, 28 pounds each. I did not keep account of the whole of them, but my bees beat my father's last season. I have 16 colonies in the cellar, and all are doing well so far. They are all Italians.

**Not Much Winter.**—E. Drane & Son, Eminence, Ky., on Jan. 22, 1889, write:

We have not had much winter here yet. The mercury was down to 20° above zero one morning Christmas week, and was at 26° this morning, which are the coldest days we have had. The earth is covered with young white clover, and we hope to get some honey when it blooms. We got no surplus the past year, and had to feed 500 pounds of sugar for winter stores. After doubling up weak colonies, we have 104 colonies left.

**Shiny Bees.**—C. W. Phelps, Binghamton, N. Y., on Jan. 21, 1889, writes:

I had a colony of bees that had a peculiar disease (if it may be called that) last July. Some of the bees would look shiny, and fly around the entrance much the same as robber bees before alighting, when the other bees would kill them after a struggle, or they would get away. At first glance I thought that they were robbers, but as I have kept bees for a good many years, I soon discovered the difference, and I positively know that the bees belong to the hive where they were killed. This killing was kept up all the latter part of the summer, and until winter, after cold, frosty weather sets in; and after the bees were confined in the hive for several days at a time, I would find quite a number of dead ones, or looking at the bottom of the cluster, and on the bottom-board, I would find the bees killing others. After it got cold enough so that they could not fly for several weeks at a time, I found a quart or two of dead ones. Did you ever see or hear of anything of the kind? I think that the bees were all killed, but I am not sure. I carried the bees into the cellar, and took the comb and honey away from them, put them into a new hive, and gave them sugar syrup, and the killing stopped after a little while. Of course I do not expect to winter them, but I think that the trouble was in the honey. I have read considerable, but I have never heard or read of a case like this.

[In the fall, shiny bees are often seen in the apiary. They are old bees, and are killed off to save the honey.—Ed.]

**Carrying in Pollen.**—H. S. Graveney, Cypress Mills, Tex., on Jan. 19, says:

We have been busy on the range. Bees carried in pollen on Jan. 15—a little earlier than usual. They did fairly well the past season, a little over 100 pounds of honey per colony.

**Expects a Bountiful Harvest.**—J. G. Norton, Macomb, Ills., on Jan. 23, 1889, says:

The bee-business has been a poor investment in this part of the State for the last three years; but bees are wintering well, and are in fine condition; so from the present prospects, I look for a bountiful honey harvest for 1889.

**Wintering Finely.**—H. M. Seeley, Harford, Pa., on Jan. 19, 1889, says:

I see by the reports of some that their bees are out nearly every day; here they were out three days at Christmas time, and not again until Jan. 17, when the temperature went up to 60° in the shade, and they had a fine flight. All seem to be wintering as finely as need be.

**Bees Wintering Well.**—John H. Larrabee, Larrabee's Point, Vt., on Jan. 21, 1889, says:

Bees here had a splendid flight on Jan. 18, and showed that they were wintering well. We have no snow, and the mercury has only reached zero twice. We look forward to next year with hope for a better season.

**Please to get your Neighbor,** who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.



ALFRED H. NEWMAN,  
BUSINESS MANAGER.

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**If You Live** near one post-office and get your mail at another, be sure to give the address that we have on our list.

**Give a Copy** of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

**Dr. Miller's Book**, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for \$1.50.

**If you Lose Money** by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

**New Subscribers** can obtain the full numbers for 1888 and 1889 for \$1.80, if application be made at once, before all the sets of 1888 are gone.

**Paper Boxes**—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4½x4½ and 5½x5½. Price, \$1.00 per 100, or \$8.50 per 1,000.

**Preserve Your Papers** for future reference. If you have no BINDER we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

**Please write American Bee Journal** on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

**Honey.**—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at 8 cents per pound for Amber and 9 cents per pound for White.

**In order to pay you** for getting new subscribers to send with your renewal, we make you this offer. For each yearly subscriber, with \$1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a premium.

**Apiary Register.**—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 25
" 200 colonies (420 pages).....	1 50

**Money and Beeswax Market.****BOSTON.**

**HONEY.**—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.  
Jan. 18. **BLAKE & RIPLEY**, 57 Chatham Street.

**DETROIT.**

**HONEY.**—Best white 1-lbs., 16@17c. Supply is not large, but about equal to the demand. Market will be bare of comb honey long before the new crop is ready.  
**BEESWAX.**—22@23c.  
Jan. 18. **M. H. HUNT**, Bell Branch, Mich.

**CHICAGO.**

**HONEY.**—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 18@19c.; 2-lbs., 11@11½c. Extracted, 6½@7½c., depending upon quality and style of package. Market dull and stock sells slowly.  
**BEESWAX.**—22c.  
Jan. 24. **S. T. FISH & CO.**, 189 S. Water St.

**ST. LOUIS.**

**HONEY.**—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.  
**BEESWAX.**—20c. for prime.  
Jan. 17. **D. G. TUTT & CO.**, Commercial St.

**CHICAGO.**

**HONEY.**—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Of grades of comb honey are slow at lower figures than given above. But few will buy dark comb.  
**BEESWAX.**—22c.  
Jan. 17. **R. A. BURNETT**, 161 South Water St.

**MILWAUKEE.**

**HONEY.**—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.  
**BEESWAX.**—22@23c.  
Jan. 10. **A. V. BISHOP**, 142 W. Water St.

**CINCINNATI.**

**HONEY.**—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.  
**BEESWAX.**—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.  
Jan. 8. **C. F. MUTH & SON**, Freeman & Central Av.

**KANSAS CITY.**

**HONEY.**—White 1-lbs., 16c.; fall, 14c.; California 1-lbs., 14c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.  
**BEESWAX.**—20@22c.  
Jan. 22. **CLEMONS, CLOON & CO.**, cor 4th & Walnut.

**KANSAS CITY.**

**HONEY.**—Choice 1-pounds, 15@16c.; dark 1-lbs., 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.  
**BEESWAX.**—None in market.  
Jan. 4. **HAMBLIN & BEARSS**, 514 Walnut St.

**DENVER.**

**HONEY.**—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.  
**BEESWAX.**—20c.  
Jan. 1. **J. M. CLARK & CO.**, 1409 Fifteenth St.

**NEW YORK.**

**HONEY.**—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c. Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.  
**HILDKRETH BROS. & SEGELKEN**,  
Jan. 10. 25 & 30 W. Broadway, near Duane St.

**SAN FRANCISCO.**

**HONEY.**—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.  
**BEESWAX.**—19@20c.  
Jan. 8. **SCHACHT, LEMCKE & STEINER**, 16 & 18 Drumm St.

**Money in Potatoes**, by Mr. Joseph Greiner. Price, 25 cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

**Send Us the Names** of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

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ON account of poor health, I offer my place for sale, situated at Verona, N. Y., near post-office, churches, school and the Central Railroad. It consists of 10 acres of good land, good buildings, apple orchard and other fruits—also 90 Colonies of Bees, and conveniences to run an apiary. Would be glad to sell all together. Can have time on part of purchase money, if desired. For further information, inquire on the premises. **R. BACON**, 5A4t VERONA, Oneida Co., N. Y.  
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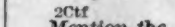
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